

In the Claims

Please amend Claims 1, 6, 11, and 14 as follows, and please enter new Claims 17-23 as follows.

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1. (Amended) A medical diagnostic ultrasound imaging method comprising:

- (a) acquiring image data for at least two frames, each frame identified in an ultrasound imaging system with a respective phase of a physiological cycle;
- (b) constructing a multi-phase, multi-frame data set from the image data by registering the image data based on image motion between the frames,
- (c) generating a plurality of images from the multi-frame data set, each image associated with a respective phase of the physiological cycle; and
- (d) displaying the images in sequence to a user.

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6. (Amended) A medical diagnostic ultrasound imaging [means] system comprising:

- means for acquiring image data for at least two frames, each frame identified in the imaging system with a respective phase of a physiological cycle;
- means for constructing a multi-phase, multi-frame data set from the image data, said constructing means comprising means for registering the image data based on image motion between frames;
- means for generating a plurality of images from the multi-frame data set, each image associated with a respective phase of the physiological cycle; and
- means for displaying the images in sequence to a user.

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11. (Amended) A medical diagnostic ultrasound imaging method comprising:

- (a) acquiring image data for at least two frames, each frame identified in an ultrasonic imaging system with a respective phase of a physiological cycle;
- (b) generating a plurality of extended field of view images from the image data, each image associated with a respective phase of the physiological cycle; and
- (c) displaying the images in sequence to a user.

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14. (Amended) A medical diagnostic ultrasound imaging system comprising:
 [(a)] means for acquiring image data for at least two frames, each frame identified in the imaging system with a respective phase of a physiological cycle;
 [(b)] means for generating a plurality of extended field of view images from the image data, each image associated with a respective phase of the physiological cycle; and
 [(c)] means for displaying the images in sequence to a user.

--17. (New) The method of Claim 1 or 11 wherein each of the frames is acquired in (a) at a respective, known phase of the physiological cycle.--

--18. (New) The method of Claim 17 wherein each of the frames is stored in (a) in a manner indicative of the respective, known phase of the physiological cycle.--

--19. (New) The method of Claim 1 wherein each image is generated in (c) from selected ones of the frames identified with the same respective phase of the physiological cycle as the image.--

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--20. (New) The method of Claim 11 wherein each image is generated in (b) from selected ones of the frames identified with the same respective phase of the physiological cycle as the image.--

--21. (New) The invention of Claim 6 or 14 wherein the acquiring means comprises means for acquiring each of the frames at a respective, known phase of the physiological cycle.--

--22. (New) The invention of Claim 21 wherein the acquiring means comprises means for storing with each of the frames an indication of the respective, known phase of the physiological cycle.--

--23. (New) The invention of Claim 6 or 14 wherein the generating means generates each of the images from selected ones of the frames identified with the same respective phase of the physiological cycle as the image.--